

Nonn Panitvong has allowed Thai nature lovers from all walks of life to pool their knowledge via a website.



COURTESY OF NONN PANITVONG

NAMED A 'BIODIVERSITY HERO': Nonn Panitvong shows off a bag full of specimens he collected during a field trip to a river in northern Thailand.

By **Tibor Krausz** / Correspondent

BANGKOK, THAILAND

Now and again you can find Nonn Panitvong floating facedown in rivers and lakes. Peering intently into the murky waters through his snorkeling mask, the Thai taxonomist is there to observe the behaviors of various freshwater fish species. He can stay like that for hours.

Occasionally his own behavior draws attention. "Sometimes strangers passing by in boats prod me with their oars to make sure I'm still alive," Dr. Nonn chuckles.

At other times you can find him in limestone caves. With a flashlight in hand or strapped to his helmet, he scouts around for rare species of karst-dwelling geckos.

"Once I found this new species of gecko," he recalls. "As I started measuring its body temperature, I realized it was around 3 degrees [C; about 5 degrees F.] higher than the surrounding environment," he adds. "I became very excited, thinking I may just have discovered the world's first warmblooded gecko!"

Stop the presses? Not quite. It turned out the coldblooded creature had simply absorbed the heat from Nonn's hands as

he was handling it. "My colleagues had a good laugh," he says.

Well-groomed with a self-mocking sense of humor, Nonn may not seem like the conventional outdoorsy type. He looks more like a businessman, which is what he is: Nonn runs his family's sugar-cane mill conglomerate and several green ventures he's set up. Yet he's also among Thailand's

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— **Petch Manopawitr**, a zoologist at International Union for Conservation of Nature

most intrepid naturalists, regularly heading off on bird-watching trips, freshwater fish photography missions, and cave explorations.

But it isn't just his fieldwork and

eco-friendly business practices that have helped him to be recognized as a "biodiversity hero" by the Association of South-east Asian Nations, which called Nonn "a key figure in the area of business and biodiversity." It's also been his promotion of do-it-yourself zoology and grass-roots environmentalism in Thailand.

A largely self-taught naturalist, Nonn has been a relentless popularizer of his homeland's rich biodiversity, partly through his Siamensis.org website. A comprehensive database with some 20,000 members, the site has nurtured a form of crowdsourced ecology. It allows Thai nature lovers from all walks of life to pool their knowledge about often overlooked species, from snakes to dragonflies.

Nature-watchers for neglected areas

Thailand has been doing a good job of guarding some protected areas, local conservationists say, but much of its natural environment elsewhere is being steadily eroded. Forests continue to be cleared, and wetlands continue to be drained or flooded. Many once-ubiquitous animals are now nowhere to be seen. Via social media Nonn has been inviting lay nature

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lovers and trained biologists alike to act as volunteer nature-watchers for neglected areas.

The members of his platforms are also keeping an eye on the spread of invasive species. Whether introduced by accident or design, foreign species such as New Guinea flatworms, South American apple snails, and Amazonian water hyacinths can trigger a cascade of environmental fallout affecting fragile local ecosystems.

Nonn's online community has added to the sum of knowledge on local species, too. Taxonomy can be a real asset for conservation, he stresses. "We want to generate and spread knowledge," Nonn says. "One of our main themes is 'If you don't know it, you won't love it.' In the end, people will conserve only what they value and love."

Some of what is in Thailand's environment has yet to be discovered by scientists. Over the years Nonn himself has found numerous new species. He named a small crustacean (*Stenasellus mongnatei*) that he discovered in a cave in Saraburi province in 2004 after a feisty village headman who had fought to protect his community's environment from encroaching development.

"There's more awareness of conservation issues in Thailand, but it's limited to a few high-profile species like tigers and elephants," observes Petch Manopawit, a Thai zoologist who works for the prominent environmental organization International Union for Conservation of Nature. "Nonn has done valuable work in popularizing a broader view of wildlife conservation and advocating for lesser-known species."

Nonn started out the way many nature lovers do: as a child with a restless curiosity about living things. That was in the 1980s, when he began collecting various animals as pets. "I learned everything about them on my own," he says. "I even knew where ants nested in our house [in Bangkok]." He'd watch the insects for hours on end.

He also went on fishing trips – on rivers and lakes and at the seashore. "I wanted to learn about fish," he says. "I wanted to learn

their habits, their likings, their migratory patterns."

Yet personal observations got him only so far. He often found himself stymied, especially with lesser-known species. While speaking to informed locals such as animal handlers and vendors at wildlife markets, he realized that "their knowledge was limited to their personal experience" with select animals.

Often, so was his. To fill the gaps in his knowledge, some two decades ago he began frequenting a nascent Thai web board where budding local naturalists shared insights about their favorite species. "I became fascinated by a group of freshwater fish called killies," he recalls. "I started posting about them under the name 'Killiman.' I was very popular [with other users]."

Joining forces with other hobbyists

Inspired by the platform's convenience, he joined forces with a few other hobbyists and launched Siamensis.org in 1999. "We started with fish and aquatic plants," he says. "But soon we attracted the attention of other nature lovers."

People with a passion for dragonflies began posting their pictures and articles. Then came people with a love of snakes. They were followed by others with a keen interest in turtles and lizards. Amphibian enthusiasts weren't far behind. "We grew and grew," Nonn says. "We turned into a community of people who had similar interests but had never had the chance to be a real community before."

Trained biologists, schoolteachers, pet owners – they could all now be part of this community. "Say a researcher specializing in bats went into a cave and found a curious-looking gecko," Nonn elucidates. "He would take a picture and share it on the site" for the benefit of other users.

These other users included Nonn, who decided to pursue a PhD in environmental science with a focus on the biology of rare endemic geckos living at limestone karsts. He did this despite both his bachelor's and master's degrees having been in



How to take action

UniversalGiving (www.universalgiving.org) helps people give to and volunteer for top-performing charitable organizations around the world. All the projects are vetted by UniversalGiving; 100 percent of each donation goes directly to the listed cause. Below are links to three groups that are involved with the environment, research, or both:

■ **IPBio – Biodiversity Research Institute** (<http://bit.ly/IPBioBrazil>) focuses on the biodiversity, ecology, and ethology of the fauna and flora in Brazilian ecosystems. Take action: Be a research assistant for this organization (<http://bit.ly/IPBioResearch>).

■ **Esperanza Verde** (<http://bit.ly/EsperanzaV>), a conservation project in the Amazon Basin of Peru, rescues animals from the illegal wildlife trade and gives them a second chance. Take action: Help at this group's Wildlife Rescue Centre (<http://bit.ly/RescueCentre>).

■ **Compassion Soul Winners Outreach International** (<http://bit.ly/CompassionS>) provides necessities to refugee and other families in Ghana. Take action: Be a volunteer who shows the children of these families the importance of a school library (<http://bit.ly/LibraryVol>).

business-related fields.

"Previously I'd never had any formal scientific training in biology or chemistry," he concedes. Not surprisingly, some professors at Kasetsart University in Bangkok, where he had applied for a spot in the PhD program, were skeptical of his ability to complete his project. Yet complete it he did, becoming a recognized expert in the field.

Today, Nonn is a regular on Thai television as a nature popularizer, and he frequently gives talks on environmental matters. He plays down his newfound fame, however. "Looking back, I'm probably the most surprised at how far I've come," he muses. "How have I become a Southeast Asian 'biodiversity hero'? I have no idea."

He retains his childlike curiosity about the natural world. "I used to dream that one day when I walked into a forest I would know everything. I'd be able to name all the plant and animal species there, and I'd be able to tell how they all interacted with one another," he says.

"I realize now I can't do that," he adds. "But at Siamensis we can. We have enough experts in every field. Since I know a little bit about everything, I can connect them." ■